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Number 59

March, 1919

THE WAR MEMORIAL

HONOR AGRICULTURE'S MEN WHO FOUGHT AND DIED FOR FREEDOM

A large number of employees of the Department of Agriculture have served their country in its military and naval branches during the war in Europe, as soldiers, sailors, and marines. Many have given their lives that we and the whole world may enjoy that freedom of which our country has been so justly proud. As most of us were compelled by force of circumstances to stay at home, it is only proper and just that we should in an appropriate manner perpetuate the honor and memory of our fellow workers who have made the supreme sacrifice. They deserve everlasting gratitude and honor, and it is believed that there are few of us indeed but will have some personal interest in the proposal fittingly to commemorate the services of our former associates.

In recognition of the valiant services rendered by these men, it is proposed that a fitting testimonial be erected in the beautiful grounds of the Department in Washington where it shall be a daily reminder of the debt we owe them. Such a memorial should in every respect be worthy of those in whose honor it is to be erected, should be in keeping with the architectural design of the Department buildings and should be in accordance with the plans of the Fine Arts Commission for the improvement of the Mall. The proposal to erect a handsome stone drinking fountain on which shall be placed an appropriate bronze tablet bearing the names of our fallen comrades has been approved by the Secretary and has met with the informal approval of the Fine Arts Commission. Congress will be asked to authorize the erection of a memorial in the Department grounds and it is believed that this request will be granted without delay.

A central committee to formulate plans and perfect an organization to execute them has been organized and will have the cooperation of a committee in each Bureau and separate office in the Department, representing over 20,000 employees, including those in the field.

Every employee will be given opportunity to have a part in this memorial, and voluntary subscriptions to the fund to be raised will also be accepted from friends and relatives of Department employees who lost their lives in the service.

Subscription cards will be supplied, and the amount pledged may be made payable immediately or at a future date to suit the subscriber's convenience, in one payment or in installments. It is important that pledge cards should be filled out at once. Payments may be made at any time between now and October 1, 1919. A. J. Leister, chairman of the local committee, Bureau of Entomology, will receive pledges and subscriptions.

The character of the memorial to those who made the supreme sacrifice will be determined by our generosity.

SOUTHERN FIELD CROP INSECT INVESTIGATIONS.

J. L. Webb, Entomological Assistant Acting in Charge.

Dr. W. D. Hunter spent a few days in Washington during the early part of the month. A. C. Morgan and W. V. King were here at the same time for conferences.

W. H. Dumont has been transferred to the laboratory at Mound, La.

E. A. McGregor has left the service of the Government to engage in private business.

E. R. Barber will leave soon on an extended trip to Cuba for the purpose of collecting and shipping to the United States parasites of the sugar-cane moth borer.

W. D. Pierce left Washington on March 13 for a trip to the Imperial Valley, Cal.

F. L. McDonough, having been mustered out of the Army, has been reinstated in the Bureau and assigned to the tobacco insect laboratory at Quincy, Fla.

S. E. Crumb is spending several weeks in Washington for the purpose of working up his cutworm material.

W. E. Dove has been mustered out of the Army and reinstated in the Bureau. He is to take up extension work in insects injurious to domestic animals, special attention being paid to horse bots.

E. E. Wehr, extension agent, working in insects injurious to domestic animals, has finished his work in Maryland and taken up the work in Indiana.

FOREST INSECT INVESTIGATIONS.

A. D. Hopkins, Forest Entomologist.

F. C. Craighead has returned from a recent trip into western Florida where he was investigating, among other things, the protection of storm-felled pine timber from insect damage. The magnitude of the problem may perhaps be realized when it is learned that one concern alone was threatened with the loss of about 100 million feet of storm-felled timber, which, appraised at about five dollars per 1,000 feet, would represent a loss of about \$500,000. As a result of this investigation it was found possible to salvage a large percentage of this timber by converting it into lumber before the borers destroy the sapwood. The remainder is being conserved in the heartwood for utilization as cross-ties. The heartwood does not decay for several years, so that it can be worked up at leisure.

T. E. Snyder returned to Washington, D. C., on March 13, after a trip to southern Florida. An examination of the Casuarina plantations at Miami Beach, Florida, shows that there is a great decrease in injury in 1919 by the mangrove borer (Chrysobothris tranquebarica Gmel.). Many of the trees that were so seriously injured in 1916 when they were young have now reached an age and size when they are no longer liable to injury. Nevertheless, other trees of all sizes have been planted and are being planted and even these trees do not show as much injury as in 1918. On March 1, 1919, C. tranquebarica was in the mature larval stage under bark and in pupal cells at Miami Beach, Fla.

In the mangrove swamps near by, the injury to the red mangrove trees is still severe and many small and even large trees are being killed, the latter gradually. There is a discussion of this injury and the control work in the

Journal of Agricultural Research, United States Department of Agriculture, for February 10, 1919.

It is interesting to note that adults of C. tranquebarica were collected at Paradise Key, Fla., in the Lower Everglades by C. A. Mosier during the season of 1918. Occasional scattering low red mangrove trees occur at and near Paradise Key.

On February 25, 1919, on a trip through the Lower Everglades, south of Paradise Key, north of West Lake, a dead adult of C. tranquebarica was found between the leaves of an epiphyte (Tillandsia sp.) on a low red mangrove tree. In this vicinity the red mangrove, normally a salt water tree, occasionally occurs in low thickets, although the water is fresh or slightly brackish. However, the soil or water at the roots of these trees may be brackish.

These facts indicate that this borer may become a serious pest anywhere that the red mangrove tree occurs.

TROPICAL AND SUBTROPICAL FRUIT INSECT INVESTIGATIONS

C. L. Marlatt, Entomologist in Charge

H. F. Dietz sailed for Panama about the middle of the month, having completed his two weeks of inspection work at the port of New Orleans with George Compere.

This is a big year for the periodical cicada. A circular on Brood X, the brood of the year, has recently been issued by the Department. On account of the extremely mild winter throughout the country, it is quite possible that the cicada may emerge much earlier than it does normally, and it is desirable that all the field agents of the Bureau within the territory covered by the Board should be on the lookout for early emergences and report them. The records of this year should give valuable data on the influence of temperature conditions on emergence. If such early emergences occur in some districts, late frosts may destroy many of the insects. Instances of this kind are known and should be recorded this year if they occur.

FEDERAL HORTICULTURAL BOARD

C. L. Marlatt, Chairman

The port inspection at New Orleans has been taken over by O. K. Courtney, formerly connected with the Texas-Mexico border inspection service. E. R. Sasscer spent a week with George Compere and Mr. Courtney at New Orleans in starting this permanent phase of the inspection service. It is planned that the general control of inspection at ports like New Orleans will be under the immediate direction of Mr. Sasscer, representing the Board, and that ultimately this service may be extended to some of the other Gulf ports and perhaps to some of the Southern Atlantic ports. Edgar L. St. Ceran, Chief Boarding Officer of the United States Customs Service, at New Orleans, has been appointed a collaborator of the Board to assist Mr. Courtney in the work of ship inspection. Mr. Compere, on the completion of his work at New Orleans, spent 10 days making an investigation of the conditions at Florida ports for the information of the Board and particularly for the benefit of the State inspection service at Florida, and returns at the end of the month to San Francisco to resume his regular work.

as Deputy Quarantine Officer for the State of California at that port.

The cleanup work in connection with the pink bollworm in western Texas has been substantially completed with a corresponding reduction in the labor force. Scouting and tracing of the movement of cotton products is being continued. No further evidence of pink bollworm infestation has been found. The Legislature of the State of Texas, now in session, has passed a new pink bollworm act, amending the original act so as to give greater leeway in quarantine matters and particularly to provide for the growth of cotton in quarantined districts under restriction. The regulated cotton zones under this act have already been established by proclamation of the Governor of the State. This act provides for its administration in part through a commission on which Dr. W. D. Hunter is the representative of the Federal Horticultural Board.

U. C. Loftin and K. B. McKinney returned at the end of February to Laredo in the Laguna in Mexico to resume their research work on the pink bollworm.

E. R. Sasscer and R. Kent Beattie will proceed to the Mexican border about the first of April to inspect and test out the fumigating houses which have been under construction for some months at the principal ports of entry from Mexico. Mr. Beattie has recently returned from the border where he has been supervising the completion of these houses. The largest of these plants, the one at Laredo, is now substantially completed and the others are practically completed also. On completion of these working-out tests, the Department of Agriculture will take over the fumigation of all cars and freight from Mexico. This fumigation hitherto has been a car fumigation in private hands, but under the supervision of inspectors of this Board.

The possibility of entry of dangerous plant pests with ships' ballast was referred to in the January number of the Monthly News Letter. The investigation of this subject indicates that the great bulk of the ballast consists of sand, gravel, broken rock, ashes, and soil. In the main, the soil seems to have been derived from river banks or from excavations for construction purposes; in other words, primeval soil which probably has no, or little, touch with cultivated land. Sand and gravel thus received are sold for building purposes. The broken rock and earth are used for filling in near-by points, but some of it is towed out to sea and dumped with city waste. The amount of such ballast has been vastly increased owing to war conditions and the need of many transports returning from France substantially empty. This situation no longer exists, and the probable amount of ballast in the future will be very much reduced. It is evident that the risk from such ballast is very small.

Norman Perrine, representing the Board, and Mr. I. E. Neifert of the Bureau of Chemistry, are conducting an interesting series of tests to determine the amount of gas absorbed by fruits and vegetables. The information thus obtained will be valuable in relation to any necessary fumigation of commercial imports of such products.

A public hearing was held at Washington, March 25, relative to the proposed quarantine on account of the flag smut and take-all diseases of wheat, oats, barley, rye, and rice. The exclusion of Oriental wheat has certain entomological importance inasmuch as it will, if authorized, prevent also the entry of possible new stored-grain pests.

LIBRARY

Mabel Colcord, Librarian,

New Books.

and bulletins 1916--1918. Edited by Neltje Tannehill Shimer. v 1-3. 1025 p. New York, 1919.

Bouvier, E. L. *La vie psychique des insectes*. 299 p., illus. Paris, 1918. (Bibliothèque de la philosophie scientifique.)

Dorset, M. Observations concerning the dissemination of hog cholera by insects. American Jour. Vet. Med., v. 14, no. 2, p.55-60, February, 1919.

Duggar, B. M. Plant physiology. 516 p., illus. New York, 1917. (Rural text-book series.)

Great Britain, Local government board. Reports on public health and medical subjects. New ser. no. 119, abridged ed. Reports and papers on malaria contracted in England in 1917. 55 p. London, 1918.

Griffin, O. B. Bee culture in Maine. 58 p., illus. Waterville, 1918. (Maine Dept. Agr. Bul., v. 17, no. 4. December.)

Harris, F. S. The sugar-beet in America. 342 p., illus. New York, 1919. (Rural science series.) Pests and diseases, p. 184-204.

Hutchinson, C. M. The pebrine disease of silkworms in India. 5 p., 2 pl. Calcutta, 1917. (Agricultural research institute, Pusa, Bul. 75.)

Leduc, Stephane. The mechanism of life. 172 p., illus. New York, 1911.

Strickland, L. F. The spraying service in Niagara County in 1917. An example of cooperation and its results, by L. F. Strickland and N. R. Peet. - Cooperators U. S. Dept. Agr., U. S. Weather Bureau, N. Y. Department of Farms and Markets. 147 p., illus., tab., diagr. Albany, 1918. (New York (State) Dept. of farms and markets, Div. of Agr. Bul. 106.)

Weed, C. M. Our trees and how to know them; photographs from nature by Arthur I. Emerson with a guide to their recognition by Clarence M. Weed. ed. 5. 295 p., illus. Philadelphia, 1918.

CEREAL AND FORAGE INSECT INVESTIGATIONS.

W. R. Walton, Entomologist in Charge.

W. H. Larrimer assumed charge of the West Lafayette, Ind., field station on March 15.

J. J. Davis recently visited Washington en route to Riverton, N. J. where he was preparing to take charge of the Japanese beetle work.

A. L. Ford has been transferred from Knoxville, Tenn., to West Lafayette, Indiana, where he will assist in the Hessian fly and white grub investigations under W. H. Larrimer.

C. M. Packard has been transferred from Berkeley, Calif., and will assume charge of the Hagerstown, Md., station about April 1.

M. C. Lane has been transferred from the Forest Grove, Ore., station to Berkeley, Calif., to take up the work formerly conducted by Mr. Packard.

D. J. Caffrey has been transferred to Arlington, Mass., and placed in charge of the investigational work in connection with the European corn borer project. He is moving into commodious laboratory quarters and preparing to conduct a vigorous investigational campaign in connection with the new work.

George B. Fisher, a graduate of the Massachusetts Agricultural College, has been appointed scientific assistant and assigned to the corn borer work at Arlington, Mass.

J. Edward Taylor, a prominent educator and extension worker, has been engaged temporarily in the field demonstration campaign against the alfalfa weevil in Utah under George I. Reeves.

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C. A. Curtin, a graduate of the Massachusetts Agricultural College, and formerly employed in South Carolina in the extensional work of this branch of the Bureau, has been appointed scientific assistant pending certification and assigned to the corn borer work in eastern Massachusetts. His headquarters will be Arlington, Mass.

MISCELLANEOUS INSECT INVESTIGATIONS.

The following notes are from specialists in this Bureau working on collections in the Division of Insects, United States National Museum:

Dr. C. H. T. Townsend has accepted a position in Brazil as official entomologist to the Sao Paulo State Government. He is scheduled to sail from New York on April 4.

A. N. Caudell is attempting to maintain an index to literature pertaining to the Orthoptera. Separates of articles touching in any way on this subject, especially from non-entomological publications, will be highly appreciated.

Dr. R. S. McEwen of Oberlin College has been given a temporary appointment as artist. He is drawing ants under the direction of Dr. W. M. Mann.

Dr. G. C. Crampton of Amherst, Mass., spent a few days at the Museum studying the structures of certain of the lower insects.

Lieut. H. H. Knight, recently discharged from the aviation service, spent March 13 and 14 looking over certain type specimens in Miridae, Hemiptera.

F. H. Gibson would call attention to a recent article by Wm. T. Davis entitled "Mississippi Cicadas, with a key to the species of southeastern United States," in the Journal of the New York Entomological Society, volume 26, pages 141-155. This is a much needed treatise and should be of interest to all who are in any way concerned with insects of this group.

"Local Notes" of the Smithsonian Institution for March 20 is a newsy production of seven pages. These notes are to appear hereafter every two weeks.

DECIDUOUS FRUIT INSECT INVESTIGATIONS

A. L. Quaintance, Entomologist in Charge

A laboratory has been established recently at Yakima, Wash., for the investigation of the codling moth in cooperation with the Washington Agricultural College. Attention will be given to the life history of the insect in the Yakima Valley, and also to large-scale spraying experiments in orchards. E. J. Newcomer and W. D. Whitecomb have been assigned to the work from the Bureau of Entomology.

H. K. Plank, after a stay of some weeks in Washington, D. C., has returned to Seaview, Wash., to resume the investigation of cranberry insects, which is being carried out in cooperation with the Washington Agricultural College. Mr. Plank will also keep in touch with the codling moth work in the Yakima Valley.

In cooperation with the Delaware Agricultural College, a laboratory has been established for work with the codling moth, which in that State has been very destructive during recent years. E. R. Selkregg and B. R. Leach have been assigned to the work, with headquarters at Dover, Del.

B. A. Porter, who was temporarily in Washington, has now returned to Wallingford, Conn., his permanent headquarters.

C. H. Alden, who was reinstated after a short period of service in the Army, is now at Wallingford, Conn., where he will assist in connection with apple insect investigations at that place.

BEE CULTURE

E. F. Phillips, Apiculturist in Charge

E. F. Phillips and Geo. S. Demuth of the Washington office and Geo. H. Rea, special field agent, assisted in giving a short extension course for commercial beekeepers at Ithaca, N. Y., during the week of February 24. There were 145 beekeepers in attendance. Of these, 93 reported owning 10,219 colonies which in 1918 produced about 22 cars of honey. Some of the largest producers there did not report and it is safe to estimate that the crop of the entire school was over 30 cars of honey. Similar extension schools are being arranged as follows: La Fayette, Ind., during the week of April 7; Ames, Iowa, during the week of April 14; and University Farm, St. Paul, Minn., during the week of April 21. At these schools Messrs. Phillips and Demuth will be assisted by E. G. Baldwin at La Fayette, E. W. Atkins at Ames, and H. L. McMurry at St. Paul. In addition to the help of these special field agents of the Bureau, help will be given by the teachers of beekeeping and the apiary inspectors of the several States. Arrangements are being made for five weeks of this short extension course work in California. Three weeks of these courses were given in California last fall and the demand for more work of the kind has been so great that the Extension Division of California has asked for two additional weeks another year. The average attendance in California was over 100.

J. V. Ormond spent the month of March in extension work in Missouri and will be in Nebraska in April.

If funds are available for the continuance of the extension work in bee-keeping during the next fiscal year, arrangements will be made so that all the field men will work in but one State. In the beginning of the work, each man was assigned to three or four States, but as the work has become known the various extension divisions have offered to cooperate by paying half of the expense in order that the men might spend all their time in one State. This plan has proved much better and after July 1 all the men will be so placed.

TRUCK CROP INSECT INVESTIGATIONS

F. H. Chittenden, Entomologist in Charge

About 270 farms in the Baker-Charlton area in Florida are known to be infested with the sweet-potato weevil. Effort is being made through the co-operation of the Florida Plant Board to induce sweet-potato growers in that area to plant from weevil-free stock. To accomplish this the growers were urged to dispose safely of all propagation material, as well as infested food sweet potatoes on hand, and a contract has been arranged with the Florida Plant Board in cooperation with the Bureau of Entomology to furnish weevil-free draws in such quantity and variety as may be requested by the grower, and at such time as the grower desires to plant. One bushel of potatoes per thousand draws required, embracing about ten varieties, has been bedded at Gainesville by the Florida State Plant Board. This means that about 1,000 bushels of sweet potatoes have been bedded down, as about 1,000,000 draws will be required, exclusive of orders for replanting stock. These draws will be sent from Gainesville to La Buena by express, and taken from the latter place to Macclenny by auto truck, making it possible to order draws in the morning and have them delivered in Macclenny the same night. Delivery of draws, according to the con-

tracts, will take place between April 1 and June 1. All the farmers in the danger area, with a single exception, have either destroyed or agreed to destroy their seed potatoes. In view of this, the condition which threatens them, should the Plant Board or Department fail to supply them with plants, can be readily imagined, as many of the farmers, due to seed scarcity, would be without their principal food crop. Further, should they not be delivered on time, with both variety and quantity specified in the contract, the good work already done in securing the confidence of the growers would be entirely lost.

The experiment now being carried on constitutes a new procedure in economic entomology, i. e., the eradication of an insect pest without interfering with the production of its food plant.

It is to be hoped that every measure which tends to assist in this can be conscientiously applied. The inspectors have suffered not a little handicap in the prevalence of heavy rains, which have made the roads in Baker County, at best of an exceedingly difficult nature, practically impassable for long periods. The mild winter has also been a drawback, since many of the sweet-potato stems which were plowed under last fall have failed to decay. Notwithstanding these difficulties, the cooperation shown by the growers, and the results so far accomplished, promise a satisfactory reduction of the infested area to show for the season's work.

O. D. Link, for some time identified as assistant entomological inspector with the work against the sweet-potato weevil in Baker County, Florida, has resigned, to enter a private enterprise in Orlando, Florida.

A. B. Jarrell, who received his discharge from the military service, has been reappointed assistant entomological inspector for Baker County, Florida, replacing Mr. Link.

C. H. Popenoe returned March 8, from a trip of inspection of the sweet-potato weevil stations in the Gulf States.

Thomas H. Jones will visit southern Florida for the investigation of melon insects, which are reported as causing considerable injury in the southern part of the State.
